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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,028	01/16/2001	Yoshiteru Hashimoto	YAESU.56378	8055
7590	05/20/2004			
Gary M. Anderson Fulwider Patton Lee & Utecht, LLP 200 Oceangate, Suite 1550 Long Beach, CA 90802			EXAMINER KUMAR, PANKAJ	
			ART UNIT 2631	PAPER NUMBER
DATE MAILED: 05/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/764,028

Applicant(s)

HASHIMOTO, YOSHITERU

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 1-3 recite "and/or". These recitations make the claims indefinite as to what applicant regards as its invention. These recitations also make the claims indefinite as to what is limited by the claim and what is not limited by the claim.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel 5549617 <sup>8 Ph</sup> in view of Tomiyama 5913155.

6. As per claim 1, Patel teaches a bandpass limiting apparatus in a receiver of the superheterodyne type, in which a plurality of frequency conversions are performed, said apparatus comprising (preamble is not afforded patentable weight): a bandpass changing means for controlling an intermediate-frequency circuit and broadening, narrowing, and/or shifting a

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passband of an intermediate-frequency signal obtained from a final stage thereof (Patel fig. 1: 10, 11, 12; col. 5 last paragraph: “A tuner I comprising elements 11-21 selects one of channels at different locations in the frequency band for the received VSB signals, such as the digital HDTV signals captured by the broadcast receiving antenna 6, and performs plural frequency conversion of the selected channel to a final intermediate-frequency signal in a final intermediate-frequency band.”); an A/D conversion (Patel fig. 1: 22) means for converting said intermediate-frequency signal (Patel fig. 1: “IF”) to a digital signal (Patel fig. 1: output of 22); a digital signal processing means for broadening, narrowing, and/or shifting the passband of said intermediate-frequency signal converted to a digital signal by said A/D conversion means (Patel fig. 1: 30, 31 narrow the passband); a detection means for obtaining an audio signal detected from said digital signal output by said digital signal processing means (Patel fig. 1: 37: “digital sound decoder”); a passband changing means changing a passband based on an adjustment signal from an adjustment operation part (not in Patel but would be obvious to duplicate the above changing means to achieve better control as explained below); and a control means, which, by controlling said digital signal processing means, based on an adjustment signal from an adjustment operation part, causes said passband of said intermediate frequency signals at each stage to change (not in Patel but Tomiyama teaches in fig. 1 controlling 20 and 21 with 13. It would have been obvious to modify Patel with Tomiyama as explained in Tomiyama to change the frequencies as explained below) in concert (not in Patel. It would have been obvious to change in concert such as for a movie in theatre so people can achieve the desired sound effect).

7. Patel does not teach a passband changing means changing a passband based on an adjustment signal from an adjustment operation part as stated in the later part of the claim. It is

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common knowledge to duplicates parts of an invention. It would have been obvious to one skilled in the art at the time of the invention to modify Patel by duplicating the passband modification means as indicated earlier in the claim. One would have been motivated to do so in order to achieve better control over the system.

8. Patel does not teach a control means, which, by controlling said digital signal processing means, based on an adjustment signal from an adjustment operation part, causes said passband of said intermediate frequency signals at each stage to change. Tomiyama teaches a control means, which, by controlling said digital signal processing means, based on an adjustment signal from an adjustment operation part, causes said passband of said intermediate frequency signals at each stage to change (Tomiyama fig. 1: 20 and 21 with 13). It would have been obvious to modify Patel with Tomiyama as explained in Tomiyama to change the frequencies.

9. Patel does not teach changing in concert. It is common knowledge that when watching a movie in a theatre, sound is coordinated between the speakers. It would have been obvious to one skilled in the art at the time of the invention to modify Patel to teach changing in concert. One would have been motivated to do so in order for people to achieve the desired sound effect.

10. As per claim 2, teaches a bandpass limiting apparatus in a receiver of the superheterodyne type, in which a plurality of frequency conversions are performed, said apparatus comprising (preamble is not afforded patentable weight): a bandpass changing means for controlling an intermediate-frequency circuit and broadening, narrowing, and/or shifting a passband of an intermediate-frequency signal obtained from a final stage thereof (Patel fig. 1: 10, 11, 12; col. 5 last paragraph: "A tuner I comprising elements 11-21 selects one of channels at

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different locations in the frequency band for the received VSB signals, such as the digital HDTV signals captured by the broadcast receiving antenna 6, and performs plural frequency conversion of the selected channel to a final intermediate-frequency signal in a final intermediate-frequency band.”); a frequency conversion means for changing said intermediate-frequency signal to a frequency signal for processing that is suitable for a data processing speed of a digital signal processing means (Patel fig. 1: “IF”; 13-20); an A/D conversion means for converting said intermediate-frequency signal to a digital signal (Patel fig. 1: 22); a digital signal processing means for broadening, narrowing, and/or shifting the passband of said intermediate-frequency signal converted to a digital signal by said A/D conversion means (Patel fig. 1: 30, 31 narrow the passband); a detection means for obtaining an audio signal detected from said digital signal output by said digital signal processing means (Patel fig. 1: 37: “digital sound decoder”); and a control means, which, by controlling said digital signal processing means, based on an adjustment signal from an adjustment operation part, causes said passband of said intermediate frequency signals at each stage (not in Patel but Tomiyama teaches in fig. 1 controlling 20 and 21 with 13. It would have been obvious to modify Patel with Tomiyama as explained in Tomiyama to change the frequencies as explained below) to change in concert (not in Patel. It would have been obvious to change in concert such as for a movie in theatre so people can achieve the desired sound effect).

11. Patel does not teach a control means, which, by controlling said digital signal processing means, based on an adjustment signal from an adjustment operation part, causes said passband of said intermediate frequency signals at each stage. Tomiyama teaches a control means, which, by controlling said digital signal processing means, based on an adjustment signal from an

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adjustment operation part, causes said passband of said intermediate frequency signals at each stage (Tomiyaama fig. 1: 20 and 21 with 13). It would have been obvious to modify Patel with Tomiyaama as explained in Tomiyaama to change the frequencies.

12. Patel does not teach changing in concert. It is common knowledge that when watching a movie in a theatre, sound is coordinated between the speakers. It would have been obvious to one skilled in the art at the time of the invention to modify Patel to teach changing in concert. One would have been motivated to do so in order for people to achieve the desired sound effect.

13. As per claim 3, teaches a bandpass-limiting apparatus according to claim 1, wherein said detection ( Patel fig. 1: 37) means converts a digital signal obtained from said digital signal processing means (Patel fig. 1: 30, 31) to a digital signal corresponding to an audio signal after detection, the converted digital signal being then D/A converted (Patel fig. 1: inherent for the speaker outputs of 8 and 9 to be analog so people to listen to the sound).

***Conclusion***

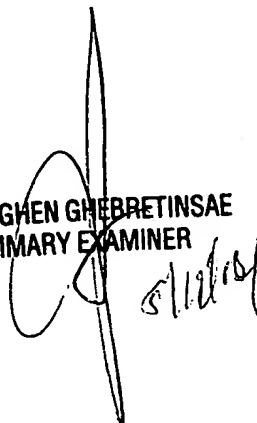
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PK

TEMESGHEN GHEBRETINSAE  
PRIMARY EXAMINER



5/12/04